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46797 7590 07/17/2007 IBM CORPORATION, INTELLECTUAL PROPERTY LAW DEPT 917, BLDG. 006-1 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER CHEA, PHILIP J	
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/918,746
Filing Date: July 31, 2001
Appellant(s): LASCHKEWITSCH ET AL.

MAILED

JUL 17 2007

Technology Center 2100

Randol W. Read
Reg. No. 43,876
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 22, 2007 appealing from the Office action mailed July 25, 2006.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,026,426	Badovinat	2-2000
6,883,100	Elley	4-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 8-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Badovinat et al. (US 6,026,426), and further in view of Elley et al. (US 6,883,100), herein referred to as Elley.

As per claim 8, Badovinat et al. disclose a system of managing membership of jobs in a cluster, as claimed, comprising:

- receiving a request to create a group comprising at least two jobs: creating, on a respective node on which each respective job is running, a list indicating each of the at

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least two jobs (see Fig. 4, where processing node 1 and processing node 2 each have respective lists indicating process x (job) running),

- receiving a request to join the group from a requesting member job (see column 5, lines 1-5, where a process (job) requests to join a process group).

Although the system disclosed by Badovintz et al. shows substantial features of the claimed invention (discussed above), it fails to disclose: that the requesting member job has membership to the group and accessing each list of each job of the group to determine whether the requesting member job is included in each list.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Badovintz et al., as evidenced by Elley.

In an analogous art, Elley discloses a system of managing group membership, wherein a server may look at a membership list to determine if a requesting member has membership (see Fig. 5, and column 5, lines 4-10).

Given the teaching of Elley, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Badovintz et al. by extending the system taught by Badovintz of each member having a list, to look in their respective list to add a member, such as disclosed by Elley, in order to determine if a job is allowed access to a resource.

As per claim 9, Badovintz et al. in view of Elley further disclose determining that the requesting member job is included in at least one list; and joining the requesting member job to the group (see Badovintz column 7, lines 3-10).

As per claim 10, Badovintz et al. in view of Elley further disclose upon receiving a request to leave a group from a requesting member job having membership to the group: updating each list of each job of the group to remove the requesting member job from the list (see Badovintz column 7, lines 36-49).

As per claim 11, Badovintz et al. in view of Elley further disclose upon receiving a request to add a new job to the group: for each current member of the group, updating a respective list to include the new job (see Badovintz column 7, lines 17-35, where the group leader adds the new job to the list); and

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for a new node, replicating the list to the new job (see Badovinatx column 6, lines 1-10, where a copy of the membership list is given to the new processor [job]).

As per claims 12, Badovinatx et al in view of Elley further disclose a computer system, comprising a first plurality of nodes, each node comprising:

- a processor configured to execute at least one job (see column 6, lines 1-5); and

- a memory device containing a copy of a first list; wherein each copy of the first list indicates jobs with a membership to a first group (see column 6, lines 1-10) and wherein each job is configured to access its respective copy of the first list to determine whether a requesting job of another node may be joined to the first group (see Elley Fig. 5, and column 5, lines 4-10).

As per claims 13 and 23, Badovinatx et al. in view of Elley further disclose a plurality of interfaces configured for adding jobs to the first group (see Badovinatx Fig. 12, [1204], where *yes* branch indicates first request of new member), removing jobs from the first group (see Badovinatx Fig. 13, [1300], [1306]), and joining returning member jobs to the first group (see Badovinatx Fig. 12, where *no* branch indicates a returning member).

As per claims 14 and 20, Badovinatx et al. in view of Elley further disclose each job configured to update its respective copy of the first list to include added members (see Badovinatx column 13, lines 47-53).

As per claims 15 and 21, Badovinatx et al. in view of Elley further disclose each job configure to update it respective copy of the first list to remove dropped members (see Badovinatx column 14, lines 16-20).

As per claim 16, Badovinatx et al. in view of Elley further disclose that the requesting job is joined to the first group when the first list contains a reference to a node on which the requesting job is running (see Badovinatx column 7, lines 3-10).

As per claim 17, Badovinatx et al. in view of Elley further disclose:

- a second plurality of nodes (see Badovinatx Fig. 1, where there are a plurality of nodes containing processors running jobs); and

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- a copy of a second list stored on each of the second plurality of nodes and associated with a job executing on the each of the second plurality of nodes; wherein each copy of the second list indicates a membership to a second group (see column 6, lines 1-10).

As per claims 18 and 22, Badovinat et al. in view of Elley further disclose copies of the first list and the second list are each unique on the system (see Badovinat column 4, lines 50-65, where it is implied a group can have different members, hence different lists).

As per claim 19, Badovinat et al. in view of Elley further disclose a memory of a node in a cluster, the memory containing at least a data structure, the data structure comprising a list defining membership to a group; wherein the list is replicated to each job having membership to the group (see Badovinat column 6, lines 1-10), wherein the request is granted if the other jobs of the group determine that the requesting member job is indicated in each respective list of the other jobs (see Elley column 5, lines 4-10 and 46-58).

(10) Response to Argument

Applicant's arguments filed March 22, 2007 have been fully considered but they are not persuasive.

- (A) Applicant contends that Badovinat does not disclose a list.

In considering (A), the Examiner respectfully disagrees. The Examiner interprets the list to be a record of the processes running on the node. Fig. 4 shows processing node 2 with two processes (jobs) running. The claim is not clear as to how the list is realized. Therefore, any sequence or series of items is considered a list. Node 2 of Fig. 4 keeps track of the running processes, thereby keeping track of series of processes (i.e. a list of processes).

- (B) Applicant contends that Badovinat does not disclose jobs.

In considering (B), the Examiner respectfully disagrees. The Applicant has argued a distinction between jobs and processors. However, the Examiner is comparing processes to jobs, not processors to jobs. Badovinat discloses processes running on processing nodes. Fig. 4 shows Process X and Process Y. Badovinat shows in column 5, lines 1-5, that a process (job) requests to join a

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process group). This citation makes it clear that a process makes an attempt to join a group. Although Badovinatx describes a process rather than a job specifically, the Examiner reads the claim using the broadest reasonable interpretation, and believes that a job (i.e. a specified amount of processing performed as a unit by a computer) can be considered a process (i.e. a program or part of a program requiring an amount of processing being executed on a computer) described by Badovinatx.

(C) Applicant contends that Badovinatx in view of Elley does not teach that the requesting member job has membership to the group and accessing each list of each job of the group to determine whether the requesting member job is included in each list.

In considering (C), the Examiner respectfully disagrees. Elley shows an existing member requesting membership to a group (see Fig. 5 and column 5, lines 4-13). A person having ordinary skill in the art would have found it obvious to extend the system taught by Badovinatx of each member having a list, to look in their respective list to add a member, such as disclosed by Elley, in order to provide added security in determining if a job is allowed to run on a specific member processing node.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Philip Chea



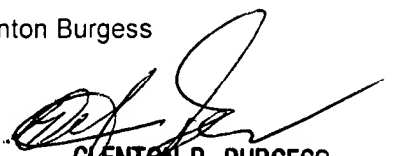
June 26, 2007

Conferees:

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Lynne Browne

Glenton Burgess


GLENTON B. BURGESS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100